

PRACTICE TEST 4 - CHAPTER 2, 9, 10

Beginning and Intermediate Algebra by Elayn Martin-Gay, 6th edition

****Reminder: Graphing Calculators will NOT be allowed on MATH 0362 tests******Graph the inequality on a number line. Then write the solution in interval notation.**

1. $x \leq -2$
2. $x < 3$
3. $x \geq -4$
4. $10(2x - 1) \leq 5(3x - 4)$

Solve the compound inequality. Write the solution in interval notation.

5. $-5x < -20$ and $x + 5 > 8$
6. $4 \leq 2t - 4 \leq 8$
7. $6x - 4 < 14$ or $-2x < -14$

Solve the absolute value equations.

8. $|2x - 3| = 5$
9. $|x - 5| + 4 = 7$
10. $|x - 3| + 8 = 9$
11. $|9x - 9| = |2x + 19|$

Solve the inequality. Graph the solution set and write it in interval notation.

12. $|2x + 1| + 1 < 8$
13. $|6x - 3| + 5 > 26$
14. Determine if the ordered pair $(4, -3)$ is a solution to $x - y > 5$. Show all work.
15. Graph the inequality: $x + 3y \leq -3$

16. Graph the solution of this system of linear inequalities: $\begin{cases} y \leq 2x - 3 \\ y \leq x + 4 \end{cases}$

Simplify the following radical expressions. Assume that variables represent positive real numbers.

17. $\sqrt{y^{10}}$

18. $\sqrt[3]{64y^9}$

19. $-\sqrt{36}$

20. $\sqrt[3]{-27}$

21. $\sqrt[4]{-9}$

Use radical notation to write the expression. Simplify if possible.

22. $16^{\frac{1}{2}}$

23. $-27^{\frac{1}{3}}$

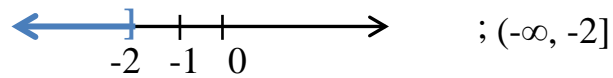
Write with positive exponents. Simplify if possible.

24. $\frac{1}{x^{-\frac{4}{7}}}$

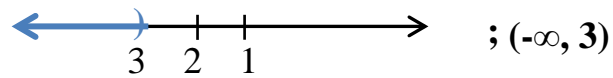
25. $\sqrt[24]{x^6}$

Practice Test 4 Chapter 2, 9, 10 Answers

1.



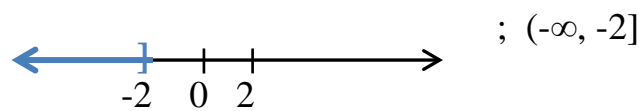
2.



3.



4.



5. $(4, \infty)$

6. $[4, 6]$

7. $(-\infty, 3) \cup (7, \infty)$

8. $x = 4$ and $x = -1$

9. $x = 2$ and $x = 8$

10. $x = 2$ and $x = 4$

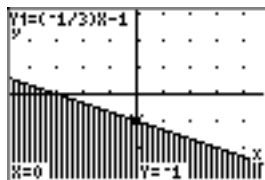
11. $x = 4$ and $x = -\frac{10}{11}$

12. $(-4, 3)$

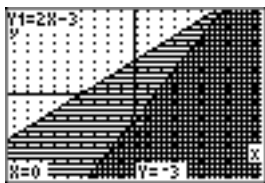
13. $(-\infty, -3) \cup (4, \infty)$

14. The ordered pair is a solution.

15.



16.



17. y^5

18. $4y^3$

19. -6

20. -3

21. not a real number

22. $\sqrt{16} = 4$

23. $\sqrt[3]{-27} = -3$

24. $x^{\frac{4}{7}}$

25. $x^{\frac{1}{4}}$